Changes of Attitudes and Patronage Behaviors in Response to a Smoke-Free Bar Law

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Objectives. We examined patron responses to a California smoke-free bar law.

Methods. Three telephone surveys measured attitudes and behavior changes after implementation of the law.

Results. Approval of the law rose from 59.8% to 73.2% (odds ratio [OR]=1.95; 95% confidence interval [CI]=1.58, 2.40). Self-reported noncompliance decreased from 24.6% to 14.0% (OR=0.50; 95% CI=0.30, 0.85). Likelihood of visiting a bar or of not changing bar patronage after the law was implemented increased from 86% to 91% (OR=1.76; 95% CI=1.29, 2.40).

Conclusions. California bar patrons increasingly support and comply with the smoke-free bar law. (*Am J Public Health.* 2003;93:611–617)

Environmental tobacco smoke (ETS) exposure is well recognized to have long-term adverse effects on health.[1,2] Epidemiological and biological evidence suggests an association between ETS and both lung cancer and cardiovascular disease.[1–6]

The health risks of exposure to ETS in the workplace have become a focus of scientific and public attention.[7–9] Bar and tavern workers have been shown to be exposed to high levels of ETS in their work environments.[10–13] Occupational exposure to ETS has been estimated to be 3.9 to 6.1 times higher among bar workers than among office workers.[10] In particular, bar workers who work in single-room bars have exceedingly high levels of exposure to ETS, approaching 10 times the levels of those who work in multiroom bars.[12] Also, nonsmoking bar workers have hair nicotine concentrations similar to those of daily smokers, in all likelihood owing to their occupational exposure to ETS.[13] These levels of ETS exposure suggest an increased risk of lung cancer in bar workers.[14,15] Also, a recent study has demonstrated the positive health effects of eliminating indoor ETS by showing improvements in bar workers' respiratory function after smoking was prohibited in their workplaces.[16]

To protect bar and tavern workers—as well as bar patrons—from exposure to ETS, policies to restrict or ban smoking in bars have been implemented throughout the United States. In 1994, California became the first state to ban smoking in virtually all indoor workplaces, when the California legislature passed Assembly Bill 13 (AB13), codified as Section 6404.5 in the California Labor Code.[17] A provision of the law banning smoking in practically all bars went into effect on January 1, 1998.

Both before and after this date, concerns were voiced about the dire consequences of this provision. Tobacco manufacturers, the National Smokers Alliance, and some bar owners complained that the provision would result in a loss of bar customers; they argued that customers would not continue to patronize bars if they could not smoke inside.[18,19] Studies following the implementation of the law have demonstrated that the smoke-free bar law has had no negative impact on retail sales.[20,21] These results echoed the findings from previous studies regarding the revenues of smoke-free restaurants and bars.[22,23] In 1998, the California Tobacco Control Program launched a campaign to introduce the new law that emphasized the adverse effect of ETS on bar employees' and patrons' health. This program of the state Department of Health Services has focused on changing social norms regarding tobacco use through media and other educational efforts.

Only a few studies conducted either in the United States or in other countries, however, have explored the ETS-related attitudes and behaviors of the general population before the establishment of smoke-free bars and restaurants.[24–26] To our knowledge, the current study is the first effort to evaluate the acceptance of and compliance with a statewide smoke-free bar law among bar patrons. The purpose of this study was to determine the degree to which public opinion regarding the law, attitudes toward ETS, likelihood of visiting bars, and perceptions of self-compliance with the law have changed since California's smoke-free bar law went into effect. We attempted to answer this question by analyzing 3 cross-sectional surveys of bar patrons. These surveys will provide an indication of the effectiveness of efforts by the California Tobacco Control Program to facilitate the implementation of the smoke-free bar provision of AB13.

METHODS

Sampling

Computer-assisted telephone surveys were conducted by Field Research Corporation (San Francisco, Calif) for the California Department of Health Services in March 1998, August 1998, and June 2000—3 months, 8 months, and 2.5 years, respectively, after enactment of the law. A random-digit dialing technique was used to create new samples of both listed and unlisted California residential telephone households for each survey.

Informants in each household contacted identified a potential respondent aged 21 years or older. The first eligible respondent who had visited a bar at least once in the past year was asked for an interview. A total of 1001 adults identified as bar patrons were interviewed for the March 1998 survey, 1020 were interviewed for the August 1998 survey, and 1000 were interviewed for the June 2000 survey.

Instruments and Measures

The surveys were conducted in both English and Spanish. We used the same survey instruments for each of the 3 surveys except that 2 questions regarding alcohol use during the bar visit were excluded in the third survey. Surveyors asked key questions in the same manner and same order for each survey.

Dependent variables. Respondents were asked to rate their approval of the law according to a 4-point Likert scale, from "approve strongly" to "disapprove strongly." Survey respondents also answered 2 ETS-related questions: "How concerned are you about the effects of environmental tobacco smoke on your health?" and "How important is it to you to have a smoke-free environment inside bars?" They used a 4-point Likert scale ranging from "very concerned (important)" to "not at all concerned (not at all important)" to categorize these opinions. We assessed the likelihood of visiting a bar by asking respondents to report whether they were "more likely" or "less likely" or whether there was "no difference" in their likelihood of visiting bars now that smoking had been prohibited.

We measured compliance with the law from 2 perspectives. First, bar patrons who were categorized as current smokers were asked "During the last visit, did you smoke in the indoor bar area?" Second, all bar patrons were asked "During the last visit, was anyone (else) to your knowledge smoking in the indoor bar area?"

Demographic characteristics. Demographic information included sex, age, education (representing education levels from 8th grade or less to graduate work past master's degree), ethnicity (non-Hispanic White, African American, Hispanic, and Asian/other), and income (under $20 000, $20 001–$40 000, $40 001–$60 000, $60 001–$80 000, and more than $80 000).

Other predictors. We asked respondents if they currently used any tobacco product. Respondents who reported currently using cigarettes, cigars, or pipes were identified as current smokers. Those who answered "no" were identified as current nonsmokers and asked if they had ever used a tobacco product. Of these, patrons who reported ever having used cigarettes, cigars, or pipes were identified as former smokers. All others were identified as nonsmokers. We also asked respondents if they had any health condition that could be affected by tobacco smoke. Finally, we measured 3 bar patronage characteristics: frequency of patronage, type of bars usually visited (stand-alone bar, bar connected to restaurant or hotel, bar connected to card club or casino, nightclub), and time spent per visit.

Data Analysis

Because the main goal was to examine the changes across 3 surveys, we classified demographic characteristics and bar patronage profiles with χ^2 analyses to detect differences across the 3 surveys.

To answer the different components of our primary question, we identified 6 dependent variables: (1) approval of the smoke-free bar law, (2) importance of a smoke-free environment inside bars, (3) concerns about ETS, (4) likelihood of bar visiting, (5) personal compliance with the law from smokers' self-report, and (6) perceived compliance by others with the law from bar patrons' observation.

For analysis purposes, all dependent variables were dummy coded as 0 or 1. For dependent variable 1, "approve strongly" and "approve somewhat" were combined and coded as 1, and "disapprove strongly" and "disapprove somewhat" were combined and coded as 0. Dependent variables 2 and 3 were coded similarly. For likelihood of visiting, we combined "more likely" and "no difference" and coded it as 1; "less likely" was coded as 0. For dependent variables 5 and 6, the answer "yes" was coded as 1, and "no" was coded as 0.

We used logistic regression models to detect changes in these variables across surveys after controlling for multivariate effects. We included potential explanatory variables and coded them. For multiple-level variables, we assigned the condition found in bivariate analyses to be least likely to approve the law as the reference (coded as 0).

Statistical analyses were performed with SAS Version 8.00 (SAS Institute Inc, Cary, NC). Bivariate relationships between dependent variables and independent variables were examined using χ^2 tests to find the possible predictors for each dependent variable. Any independent variable whose bivariate test had a P value less than .25 was entered into the regression model.[27-28] Stepwise logistic regression was conducted for each dependent variable with the entry P level of .1 (determined by score test) for independent variables, using the PROC LOGISTIC procedure in SAS.[29]

RESULTS

Characteristics of the 3 Surveys

The response rates for each wave were 28% (March 1998), 32% (August 1998), and 30% (June 2000). The response rate is a function of the protocol used. Because these surveys were designed as opinion polls—which capture a snapshot in time—to respond to the concerns voiced by the tobacco industry and the National Smokers Alliance, we used only 4 callbacks over a 1-week period for each survey. The cooperation response rates were 49% (March 1998), 57% (August 1998), and 53% (June 2000). The percentages of respondents who identified themselves as bar patrons were 56% (March 1998), 54% (August 1998), and 49% (June 2000).

As Table 1 shows, education level was the only statistically significant demographic variable across the different surveys. In the third survey (June 2000), the percentage of respondents reporting both lowest and highest education levels rose slightly, compared with the first and second surveys (25.7%, 22.5%, 22.4%, respectively, for lowest level; 41.9%, 39.2%, 39.5%, respectively, for highest level). Time spent per visit was also statistically significant across the surveys. More patrons in the third survey (41.7%) reported staying longer at bars—1 to 2 hours per visit—compared with the first survey (36.2%).

We found a significant increase in patrons who had health conditions affected by smoking in the third survey, compared with the first and second surveys (29.3%, 24.5%, 23.9%, respectively). Although the percentage of current smokers was slightly lower in the third survey, smoking status was not a statistically significant variable in any of the surveys.

TABLE 1—Characteristics of Respondents to 3 California Bar Patron Surveys, by Survey Period

Characteristic	Survey Period		
	March 1998 (n = 1001), %	August 1998 (n = 1020), %	June 2000 (n = 1000), %
Age, y			
21–29	27.4	28.2	26.1
30–39	25.5	28.7	23.4
40–49	20.3	19.3	22.9
50–59	15.1	12.2	16.0
60 or older	11.7	11.6	11.6
Sex			
Male	52.2	54.0	51.1
Female	47.8	45.9	48.9
Race/ethnicity			
Hispanic	18.1	17.0	21.2
Non-Hispanic White	67.4	67.3	62.9
Non-Hispanic Black	5.3	5.2	6.2
Asian/other	9.2	10.6	9.7
Educational level[a]			
≤ High school graduate	22.5	22.4	25.7
Some college	38.4	38.1	32.4
≥ College graduate	39.2	39.5	41.9
Household income, $			
≤ 20 000	13.2	11.2	13.2
20 001–40 000	25.3	27.3	24.3
40 001–60 000	25.6	24.6	21.2
60 001–80 000	15.0	16.3	15.9
≥ 80 001	21.0	20.7	25.4
Smoking status			
Nonsmoker	42.5	41.5	46.3
Former smoker	32.1	33.9	30.9
Current smoker	25.5	24.6	22.8
Health conditions[b]			
Yes	24.5	23.9	29.3
No	75.5	76.1	70.7
Frequency of bar visiting			
< Once a month	38.1	37.0	40.1
Once a month	22.2	21.6	25.0
2–3 times a month	20.8	21.2	17.4
Once a week	10.8	11.3	11.4
> Once a week	8.2	9.0	6.1
Type of bars[c]			
Stand-alone bar	15.7	16.4	13.9
Restaurant/hotel bar	61.7	60.2	60.0
Card club/casino bar	7.1	6.5	7.0
Nightclub	26.5	27.0	25.2
Staying time per visit[a]			
< 30 minutes	14.5	10.4	11.7
30 minutes to 1 hour	22.9	22.2	19.8
1–2 hours	36.2	39.5	41.7
> 2 hours	26.4	27.9	26.8

[a] $P < .05$ based on general association χ^2 test.
[b] $P < .05$ based on both general association and Mantel–Haenszel χ^2 test for trend.
[c] Multiple choices were allowed.

Attitudes Toward the Smoke-Free Bar Law

Bivariate analysis shows that approval of the law increased over the 3 waves across smoking status and type of bar visited (Table 2). Using more bivariate test results, we included all possible independent variables in the stepwise logistic regression model for approval of the law, importance of smoke-free environment inside bars, concerns about effects of ETS on health, and likelihood of bar visiting (data not shown).

After controlling for other factors, we found respondents to the second and third surveys to be more likely to approve of the smoke-free bar law, compared with respondents to the first survey (Table 3). The odds ratio (OR) for the third survey (OR=1.95; 95% confidence interval [CI]=1.58, 2.40) was larger than that for the second survey (OR=1.45; 95% CI=1.18, 1.78), further suggesting that bar patrons were more likely to approve of the smoke-free bar law in the third survey than in the second survey.

Compared with respondents to the first survey, respondents to the third survey were more likely to agree that it is important to have a smoke-free environment inside bars (OR=1.5; 95% CI=1.27, 1.97) (Table 3). There was no significant difference on this variable between the second and first surveys.

Table 3 also shows that there were no significant differences across the 3 surveys regarding concern about the effects of ETS on health. Although patrons in later surveys tended to be more concerned about ETS, the levels of concern were not significantly different from those found in the first survey.

Compared with respondents to the first survey, a higher percentage of respondents to the third survey reported that they were "more likely" to visit bars or that there would be "no change" in their visiting intentions now that smoking was banned in bars (OR=1.76; 95% CI=1.29, 2.4) (Table 3). However, there was no significant difference on this variable between the first and second surveys.

Respondents who approved of the law tended to be nonsmokers, female, younger, or more highly educated; to patronize restaurant- or hotel-connected bars; or to be less frequent bar patrons. Nonsmokers, patrons of restaurant- or hotel-connected bars,

TABLE 2—Attitudes and Behaviors Regarding California Smoke-Free Law, by Selected Characteristics of California Bar Patrons[a]

	Approval of the Law, %	Indoor Smoke-Free Environment Is Important, %	Concern About ETS	More Likely or No Difference of Bar Visiting, %	Personal Noncompliance With the Law, %	Perceived Noncompliance With the Law, %
Survey						
March 1998	59.8***	66.2***	66.9	85.6***	24.6**	29.3***
August 1998	65.7	68.6	68.7	87.4	25.3	30.1
June 2000	73.2	75.4	71.7	91.0	14.0	20.4
Smoking status[a]						
Nonsmoker						
March 1998	70.5***	75.6***	78.7	95.1	. . .	27.9***
August 1998	77.9	81.2	80.1	95.8	. . .	27.6
June 2000	81.1	84.0	81.7	96.6	. . .	20.0
Current smoker						
March 1998	25.2***	36.3*	31.5	57.7***	24.6**	33.5**
August 1998	30.2	31.1	34.1	62.3	25.3	35.3
June 2000	44.4	43.8	36.1	73.6	14.0	23.0
Type of bar[b]						
Stand-alone bar						
March 1998	45.7**	46.7*	51.8	78.4	41.2	46.3
August 1998	56.5	60.3	59.6	87.4	38.4	42.8
June 2000	62.1	60.8	60.7	86.6	20.6	33.2
Restaurant/hotel bar						
March 1998	62.0***	69.9***	68.9**	87.9*	16.5	22.3***
August 1998	68.9	72.9	72.7	89.0	16.5	22.9
June 2000	76.9	80.2	75.7	92.8	7.3	14.9
Casino/card club bar						
March 1998	50.4	60.9***	64.8	86.6	32.2	41.3
August 1998	51.6	55.8	62.7	81.4	33.8	42.8
June 2000	65.2	79.5	69.5	89.4	20.1	25.9
Nightclub						
March 1998	58.4**	60.7**	68.5	83.2	31.1*	35.3*
August 1998	66.6	66.2	71.6	87.6	27.0	36.6
June 2000	72.6	71.3	65.0	88.4	21.0	25.3
Frequency of bar visiting						
≤ Once a week						
March 1998	62.3***	68.7***	69.4	88.2	20.2	26.9***
August 1998	67.9	71.0	71.1	88.4	18.6	26.1
June 2000	73.4	76.1	72.7	90.4	12.4	18.5
≥ Twice a week						
March 1998	45.2***	52.7*	55.5	74.8***	33.0	37.7*
August 1998	60.6	61.5	60.7	85.1	36.0	42.6
June 2000	68.4	67.4	62.8	94.6	25.5	29.4

Note. ETS = environmental tobacco smoke.
[a]General association and Mantel-Haenszel χ^2 test for trend were used for analyses.
[b]Multiple choices were allowed.
*P < .05; **P < .01; ***P < .001

and respondents with higher educational attainment were also more likely to agree with the importance of the smoke-free environment inside bars, whereas patrons of stand-alone bars and those who patronized bars more frequently were less likely to agree. Younger patrons, stand-alone bar patrons, and those who stayed more than 2 hours per visit were less likely to be concerned about the effects of ETS on health. Patrons with higher educational attainment and those with health problems affected by

TABLE 3—Logistic Regression Model Relating Law-Related Variables to Other Factors Among California Bar Patrons

Characteristic	Approval of the Law, % OR (95% CI)	Indoor Smoke-Free Environment Is Important, % OR (95% CI)	Concern About ETS OR (95% CI)	More Likely or No Difference of Bar Visiting, % OR (95% CI)	Personal Noncompliance With the Law, % OR (95% CI)	Perceived Noncompliance With the Law, % OR (95% CI)
Surveys[a]						
March 1998	(Reference)	(Reference)	(Reference)	(Reference)	(Reference)	(Reference)
August 1998	1.45 (1.18, 1.78)***	1.19 (0.96, 1.47)	1.11 (0.90, 1.38)	1.19 (0.89, 1.59)	1.06 (0.66, 1.71)	1.04 (0.83, 1.29)
June 2000	1.95 (1.58, 2.40)***	1.58 (1.27, 1.97)***	1.18 (0.95, 1.46)	1.76 (1.29, 2.40)**	0.50 (0.30, 0.85)**	0.63 (0.50, 0.80)**
Age, y[a]						
21–29	1.82 (1.42, 2.34)***	…	1.97 (1.52, 2.55)**	…	2.46 (1.55, 3.90)**	1.39 (1.13, 1.70)**
30–39	1.52 (1.20, 1.92)***	…	1.90 (1.48, 2.44)**	…	…	…
40–49	1.36 (1.06, 1.74)**	…	1.59 (1.23, 2.05)**	…	…	…
50–59	…	0.78 (0.61, 1.00)*	…	…	2.42 (1.32, 4.45)**	…
≥ 60	(Reference)	(Reference)	(Reference)	…	(Reference)	(Reference)
Sex						
Female	(Reference)	(Reference)	(Reference)	(Reference)	…	(Reference)
Male	0.98 (0.82, 1.16)	0.86 (0.72, 1.03)	0.62 (0.52, 0.75)***	1.16 (0.89, 1.50)	…	1.23 (1.02, 1.47)*
Educational level[a]						
≤ High school	(Reference)	(Reference)	…	…	…	(Reference)
Some college	…	…	…	…	…	…
≥ College graduate	1.34 (1.11, 1.62)**	1.27 (1.05,1.53)*	…	…	…	0.85 (0.70, 1.04)
Household income, $[a]						
≤ 20 000	(Reference)	…	…	(Reference)	…	(Reference)
20 001–60 000	…	…	…	…	…	…
≥ 60 001	1.22 (1.00, 1.47)*	…	…	1.37 (1.04, 1.81)*	…	0.77 (0.63, 0.95)*
Smoking status						
Nonsmoker	(Reference)	(Reference)	(Reference)	(Reference)	…	(Reference)
Current smoker	0.17 (0.14, 0.21)***	0.18 (0.14, 0.21)***	0.13 (0.11, 0.16)***	0.08 (0.06, 0.10)***	…	1.03 (0.83, 1.26)
Health conditions affected by ETS						
No	(Reference)	(Reference)	(Reference)	(Reference)	(Reference)	…
Yes	2.19 (1.76, 2.71)***	2.58 (2.05, 3.25)**	2.52 (2.00, 3.18)**	1.64 (1.16, 2.32)**	2.52 (1.99, 3.18)**	…
Frequency of bar visiting[a]						
≤ Once a month	1.27 (1.03, 1.59)*	1.30 (1.04, 1.61)*	1.27 (1.02, 1.59)*	…	…	0.55 (0.44, 0.69)***
2–3 times a week	…	…	…	…	…	0.75 (0.60, 1.94)*
≥ Once a week	(Reference)	(Reference)	(Reference)	…	…	(Reference)
Type of bar[b]						
Stand-alone bar	0.71 (0.55, 0.91)**	0.64 (0.50, 0.83)**	0.72 (0.56, 0.93)*	…	1.84 (1.16, 2.92)**	1.50 (1.16, 1.95)***
Restaurant/hotel bar	1.26 (1.03, 1.53)**	1.27 (1.04, 1.56)*	1.20 (0.97, 1.48)	…	…	0.61 (0.48, 0.77)***
Casino/card club bar	…	…	…	…	…	1.39 (0.98, 1.97)*
Nightclub	…	…	…	…	…	0.98 (0.77, 1.25)
Staying time per visit[a]						
< 30 minutes	…	1.23 (1.00, 1.51)*	1.28 (1.03, 1.59)*	1.30 (1.00, 1.69)	1.27 (1.02, 1.59)*	…
30 minutes–1 hour	…	…	…	…	…	…
1–2 hours	…	…	…	…	…	…
> 2 hours	…	(Reference)	(Reference)	(Reference)	(Reference)	…

Note. ETS = environmental tobacco smoke; OR = odds ratio; CI = confidence interval.
[a]The condition found in bivariate analyses to be least likely to approve the law was assigned as the reference.
[b]Multiple choices were allowed.
*$P < .05$; **$P < .01$; ***$P < .001$.

smoke tended to report that they were "more likely" to visit bars or to report "no change" in their patronage. Patrons who stayed more than 2 hours per visit were less likely to report that they would increase their bar patronage in the future, an only marginally significant observation.

Personal Noncompliance With the Law

Overall, of the 664 smokers who responded to these 3 surveys, 21.2% reported that they smoked inside the bar during their last visit. In both the first and second surveys, about one-fourth of the smokers reported smoking inside, but this percentage decreased dramatically in the third survey, to 14.0% (Table 2). This change from first to last survey wave persisted even after we controlled for other factors (OR=0.50; 95% CI=0.30, 0.85).

Smokers in the "21–29 years" and "50–59 years" age groups were more likely to violate the law by smoking inside. Stand-alone bar patrons were also more likely to smoke in bars. Smokers who stayed in bars for more than 2 hours were less likely to smoke inside.

Perceived Noncompliance With the Law

As indicated in Table 2, the perceived noncompliance rate (patron observed smoking inside bar during his or her last visit) was about 30% in the first 2 surveys but only about 20% in the third survey. After differences among types of bars were controlled, this difference was still significant (OR=0.63; 95% CI=0.50, 0.80) (Table 3).

Patrons in both stand-alone bars and card club– or casino-connected bars were more likely to report that there was someone else smoking inside the bar, whereas patrons of restaurant- or hotel-connected bars were less likely to report noncompliance.

DISCUSSION

This study of 3 cross-sectional surveys of the opinions, observations, and behavior of California bar patrons demonstrates the influence and public acceptance of an ETS-related California state law. The first survey can be considered to represent the initial acceptance phase of the law, because it was conducted shortly after the effective date of the law (January 1, 1998). The second survey was conducted 5 months after the first one and represents a relatively early stage after the law's implementation. The third survey was conducted 2 years after the law had gone into effect. Our data suggest that, over time, more California bar patrons favored the smoke-free bar law, took seriously the health concerns regarding exposure to ETS, obeyed the law, and reported compliance with the law. This indicates that an increasing majority of California bar patrons prefer that bars be smoke-free.

Respondents in the third survey were more likely to approve of the law (73.2%) compared with those in the first and second surveys (59.8% and 65.7%, respectively). Even for patrons of stand-alone bars, who were more likely to oppose the law, the percentage of approval rose from 45.7% in the first survey to 62.1% in the third. A similar trend was also observed among patrons who visited bars more than once a week (45.2%, 60.1%, and 68.4%, respectively, for the first, second, and third surveys). Although the majority of respondents approved of the law even in the first survey, the steadily and significantly increasing percentages of bar patrons who approved of the law in the latter 2 surveys indicate the successful institutionalization of a change in social norms. Viewed broadly, these 3 surveys provide evidence of a change in the way Californians regard smoking, even in a venue traditionally considered difficult to change by public health policy.

The results of the likelihood-of-visiting variable conform with the conclusion from a previous comparable study, which showed that 20% of respondents would increase patronage whereas 10.8% would decrease patronage following a smoking ban in bars and restaurants.[24] In our third survey, 32.3% of the respondents reported that they were more likely to visit bars, whereas only 9% had the opposite opinion. The proportion of bar patrons who were more likely to visit a bar, or who reported no change in their likelihood of visiting a bar, was significantly higher in the third survey than in the first survey. These findings suggest that bar patrons have become increasingly more comfortable with a smoke-free bar environment.

Both smokers' self-reports and bar patrons' observations indicate that noncompliance rates (smoking inside bars) decreased significantly over time. The significant decrease in the third survey is strongly indicative of the successful implementation and acceptance of the smoke-free bar law in California, which relies primarily on voluntary compliance.

Given the nature of a cross-sectional survey conducted by telephone, some limitations—such as in reporting accuracy and sample selection—are inevitable. For example, the use of a telephone survey may result in a skewed sample of the actual population. Because of their willingness to complete the survey, the respondents selected may be inclined to support the law. It is also possible that some smokers who did not comply with the law may have reported otherwise. Some individuals who stopped going to bars because of the law may not be included in the sample, thus resulting in a selection bias. The decline in percentage of self-identified bar patrons and current smokers also suggests this limitation. Low overall response rates are also a source of potential bias, because the surveys were designed as opinion polls to respond to the concerns posed by the tobacco industry and the National Smokers Alliance. Despite these limitations, the use of the same survey protocol supports the comparability of the 3 waves. Also, the magnitude of the changes suggests that the results may be sustainable after the biases are eliminated.

Overall, our findings indicate that California bar patrons have become increasingly supportive of and compliant with the state's smoke-free bar law. The increasingly positive attitudes may be partly attributed to the public's better understanding of the ETS health issue, which has been heavily emphasized by California Tobacco Control Program efforts, especially media messages that stress the benefits of the law and the importance of compliance. There may be a snowball effect, in which people who become accustomed to a smoke-free indoor environment at work, in restaurants, and other public places become less tolerant of exposure to ETS.

The social norm change model for reducing smoking employed by the California Tobacco Control Program appears to be having a deep effect on people's attitudes and behavior.[30,31] Clearly, the adoption of ETS-related policies is critical to public health efforts to

protect the long-term health of employees, customers, and the general public.[32] ■

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Contributors

H. Tang led the plan of the study, the analysis and interpretation of the data, and the writing of the article. D.W. Cowling contributed to the plan of the study, the analysis and interpretation of the data, and the writing of the article. J.C. Lloyd and T. Rogers contributed to the plan of the study, the interpretation of the data, and the writing of the article. K.L. Koumjian, C.M. Stevens, and D.G. Bal provided feedback in the interpretation of the data and critically revised the article.

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Human Participant Protection

No protocol approval was needed for this study.

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